

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.

Application Serial Number: 10/783,710A
Source: IFW00
Date Processed by STIC: H0-05

ENTERED



IFWO

RAW SEQUENCE LISTING

DATE: 01/06/2005

PATENT APPLICATION: US/10/783,710A

TIME: 16:07:23

Input Set : D:\38-21(52743)B.rpt

Output Set: N:\CRF4\01062005\J783710A.raw

1 <110> APPLICANT: Sun, Jindong
 2 Zobrist, Kimberly
 3 Wu, Jingrui
 4 Fu, Changlin
 5 Dotson, Stanton B.
 6 Lutfiyya, Linda L.
 8 <120> TITLE OF INVENTION: Transgenic Plants
 10 <130> FILE REFERENCE: 38-21(52743)B
 C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/783,710A
 C--> 12 <141> CURRENT FILING DATE: 2004-02-21
 12 <150> PRIOR APPLICATION NUMBER: US 60/449,054
 14 <151> PRIOR FILING DATE: 2003-02-22
 16 <160> NUMBER OF SEQ ID NOS: 12
 18 <210> SEQ ID NO: 1
 19 <211> LENGTH: 270
 20 <212> TYPE: PRT
 21 <213> ORGANISM: Arabidopsis thaliana
 23 <400> SEQUENCE: 1
 25 Met Glu Leu Asn Arg Ser Glu Ala Asp Glu Ala Lys Ala Glu Thr Thr
 26 1 5 10 15
 28 Pro Thr Gly Gly Ala Thr Ser Ser Ala Thr Ala Ser Gly Ser Ser Ser
 29 20 25 30
 31 Gly Arg Arg Pro Arg Gly Arg Pro Ala Gly Ser Lys Asn Lys Pro Lys
 32 35 40 45
 34 Pro Pro Thr Ile Ile Thr Arg Asp Ser Pro Asn Val Leu Arg Ser His
 35 50 55 60
 37 Val Leu Glu Val Thr Ser Gly Ser Asp Ile Ser Glu Ala Val Ser Thr
 38 65 70 75 80
 40 Tyr Ala Thr Arg Arg Gly Cys Gly Val Cys Ile Ile Ser Gly Thr Gly
 41 85 90 95
 43 Ala Val Thr Asn Val Thr Ile Arg Gln Pro Ala Ala Pro Ala Gly Gly
 44 100 105 110
 46 Gly Val Ile Thr Leu His Gly Arg Phe Asp Ile Leu Ser Leu Thr Gly
 47 115 120 125
 49 Thr Ala Leu Pro Pro Pro Ala Pro Pro Gly Ala Gly Gly Leu Thr Val
 50 130 135 140
 52 Tyr Leu Ala Gly Gly Gln Gly Gln Val Val Gly Gly Asn Val Ala Gly
 53 145 150 155 160
 55 Ser Leu Ile Ala Ser Gly Pro Val Val Leu Met Ala Ala Ser Phe Ala
 56 165 170 175
 58 Asn Ala Val Tyr Asp Arg Leu Pro Ile Glu Glu Glu Glu Thr Pro Pro
 59 180 185 190
 61 Pro Arg Thr Thr Gly Val Gln Gln Gln Gln Pro Glu Ala Ser Gln Ser

(pg. 6)

RAW SEQUENCE LISTING

DATE: 01/06/2005

PATENT APPLICATION: US/10/783,710A

TIME: 16:07:23

Input Set : D:\38-21(52743)B.rpt

Output Set: N:\CRF4\01062005\J783710A.raw

```

62          195          200          205
64 Ser Glu Val Thr Gly Ser Gly Ala Gln Ala Cys Glu Ser Asn Leu Gln
65          210          215          220
67 Gly Gly Asn Gly Gly Gly Gly Val Ala Phe Tyr Asn Leu Gly Met Asn
68 225          230          235          240
70 Met Asn Asn Phe Gln Phe Ser Gly Gly Asp Ile Tyr Gly Met Ser Gly
71          245          250          255
73 Gly Ser Gly Gly Gly Gly Gly Gly Ala Thr Arg Pro Ala Phe
74          260          265          270
77 <210> SEQ ID NO: 2
78 <211> LENGTH: 295
79 <212> TYPE: PRT
80 <213> ORGANISM: Oryza sativa
82 <400> SEQUENCE: 2
84 Met Glu His Ser Lys Met Ser Pro Asp Lys Ser Pro Val Gly Glu Gly
85 1          5          10          15
87 Asp His Ala Gly Gly Ser Gly Ser Gly Gly Val Gly Gly Asp His Gln
88          20          25          30
90 Pro Ser Ser Ser Ala Met Val Pro Val Glu Gly Gly Ser Gly Ser Ala
91          35          40          45
93 Gly Gly Ser Gly Ser Gly Gly Pro Thr Arg Arg Pro Arg Gly Arg Pro
94          50          55          60
96 Pro Gly Ser Lys Asn Lys Pro Lys Pro Pro Ile Ile Val Thr Arg Asp
97 65          70          75          80
99 Ser Pro Asn Ala Leu His Ser His Val Leu Glu Val Ala Gly Gly Ala
100          85          90          95
102 Asp Val Val Asp Cys Val Ala Glu Tyr Ala Arg Arg Arg Gly Arg Gly
103          100          105          110
105 Val Cys Val Leu Ser Gly Gly Gly Ala Val Val Asn Val Ala Leu Arg
106          115          120          125
108 Gln Pro Gly Ala Ser Pro Pro Gly Ser Met Val Ala Thr Leu Arg Gly
109          130          135          140
111 Arg Phe Glu Ile Leu Ser Leu Thr Gly Thr Val Leu Pro Pro Pro Ala
112 145          150          155          160
114 Pro Pro Gly Ala Ser Gly Leu Thr Val Phe Leu Ser Gly Gly Gln Gly
115          165          170          175
117 Gln Val Ile Gly Gly Ser Val Val Gly Pro Leu Val Ala Ala Gly Pro
118          180          185          190
120 Val Val Leu Met Ala Ala Ser Phe Ala Asn Ala Val Tyr Glu Arg Leu
121          195          200          205
123 Pro Leu Glu Gly Glu Glu Glu Glu Val Ala Ala Pro Ala Ala Gly Gly
124          210          215          220
126 Glu Ala Gln Asp Gln Val Ala Gln Ser Ala Gly Pro Pro Gly Gln Gln
127 225          230          235          240
129 Pro Ala Ala Ser Gln Ser Ser Gly Val Thr Gly Gly Asp Gly Thr Gly
130          245          250          255
132 Gly Ala Gly Gly Met Ser Leu Tyr Asn Leu Ala Gly Asn Val Gly Gly
133          260          265          270
135 Tyr Gln Leu Pro Gly Asp Asn Phe Gly Gly Trp Ser Gly Ala Gly Ala

```

RAW SEQUENCE LISTING

DATE: 01/06/2005

PATENT APPLICATION: US/10/783,710A

TIME: 16:07:23

Input Set : D:\38-21(52743)B.rpt

Output Set: N:\CRF4\01062005\J783710A.raw

```

136          275          280          285
138 Gly Gly Val Arg Pro Pro Phe
139      290          295
142 <210> SEQ ID NO: 3
143 <211> LENGTH: 230
144 <212> TYPE: PRT
145 <213> ORGANISM: Gossypium hirsutum
147 <400> SEQUENCE: 3
149 Ala Phe Gly Ser His Tyr Lys Leu Trp Arg Arg Ser Thr Thr Ser Gly
150 1          5          10          15
152 Lys Lys Pro Arg Gly Arg Pro Ala Gly Ser Lys Asn Lys Pro Lys Ser
153      20          25          30
155 Pro Ile Ile Val Ala Arg Asp Ser Pro Asn Ser Leu Arg Ser His Val
156      35          40          45
158 Leu Glu Ile Ser Ser Gly Ser Asp Ile Val Asp Ser Val Trp Gly Tyr
159      50          55          60
161 Ala Arg Arg Arg Gly Arg Gly Val Cys Val Leu Ser Gly Thr Gly Ala
162 65          70          75          80
164 Val Thr Asn Val Thr Leu Arg Gln Pro Ala Ala Pro Pro Gly Ser Val
165      85          90          95
167 Val Thr Leu His Gly Arg Phe Glu Ile Leu Ser Leu Thr Gly Thr Ser
168      100         105         110
170 Leu Pro Pro Pro Ala Pro Pro Gly Ala Gly Gly Leu Thr Val Tyr Leu
171      115         120         125
173 Ala Gly Val Gln Gly Gln Val Val Gly Gly Ser Val Val Gly Pro Leu
174      130         135         140
176 Met Ala Ser Gly Pro Val Val Leu Met Ala Ala Ser Phe Ala Asn Ala
177 145         150         155         160
179 Val Tyr Asp Arg Leu Pro Leu Glu Glu Glu Asp Pro Pro Thr Val His
180      165         170         175
182 Glu Gln Gln Pro Ala Ala Ser Gln Ser Ser Gly Leu Thr Gly Ser Gly
183      180         185         190
185 Gly Gly Asn Asn Asn Asn Cys Gly Thr Thr Gly Thr Gly Val Gly Gly
186      195         200         205
188 Gly Gly Gly Gly Val Pro Phe Tyr Asn Leu Gly Pro Asn Met Gly Thr
189      210         215         220
191 Tyr Pro Phe Pro Gly Leu
192 225         230
195 <210> SEQ ID NO: 4
196 <211> LENGTH: 974
197 <212> TYPE: DNA
198 <213> ORGANISM: Arabidopsis thaliana
200 <400> SEQUENCE: 4
202 ccccccgcacc tgcctctaca gagacctgaa gattccagaa cccacactga tcaaaaataa 60
204 catggaactt aacagatctg aagcagacga agcaaaggcc gagaccactc ccaccggtgg 120
206 agccaccagc tcagccacag cctctggctc ttctctcgga cgctgtccac gtggtcgtcc 180
208 tgcagggttcc aaaaacaaac ccaaacctcc gacgattata actagagata gtcctaacgt 240
210 ccttagatca cacgttcttg aagtcacctc cgggttcggac atatccgaag cagtctccac 300
212 ctacgccact cgtcgcggct gcggcggttg cattataagc ggcacgggtg cggtcactaa 360

```

RAW SEQUENCE LISTING

DATE: 01/06/2005

PATENT APPLICATION: US/10/783,710A

TIME: 16:07:23

Input Set : D:\38-21(52743)B.rpt

Output Set: N:\CRF4\01062005\J783710A.raw

```

214 cgtcacgata cggcaacctg cggctccggc tgggtggaggt gtgattaccc tgcattggctcg 420
216 gtttgacatt ttgtctttga ccggtactgc gcttccaccg cctgcaccac cgggagcagg 480
218 aggtttgacg gtgtatctag ccggaggtca aggacaagtt gtaggaggga atgtggctgg 540
220 ttcgttaatt gcttcgggac cggtagtggt gatggctgct tcttttgcaa acgcagttta 600
222 tgatagggtta ccgattgaag aggaagaaac cccaccgccg agaaccaccg ggggtgcagca 660
224 gcagcagccg gaggcgtctc agtcgtcga ggttacgggg agtggggccc aggcgtgtga 720
226 gtcaaacctc caaggtggaa atggtggagg aggtgttgct ttctacaatc ttggaatgaa 780
228 tatgaacaat tttcaattct ccgggggaga tatttacggg atgagcggcg gtagcggagg 840
230 aggtgggtggc ggtgcgacta gaccgcggtt ttagagtttt agcgttttgg tgacaccttt 900
232 tgttgcggtt gcgtgtttga cctcaaaacta ctaggctact agctatagcg gttgcgaaat 960
234 gcgaatatta ggtt 974

```

237 <210> SEQ ID NO: 5

238 <211> LENGTH: 1071

239 <212> TYPE: DNA

240 <213> ORGANISM: Oryza sativa

242 <400> SEQUENCE: 5

```

244 atggccggga tggacctggt cggggggcggc gccggcgccg gcagctcacg gtacttccac 60
246 catctgctcc gaccgcagca gccgtcgccg ctgtcaccgc tgtcgccgac atcccatgtc 120
248 aagatggagc actccaagat gtcaccgcac aagagccccg tgggcgaggg agatcacgcg 180
250 ggaggggagt gaagcggcgg cgtcggcggt gaccaccagc cgtcgtcgtc ggccatggtg 240
252 cccgtcgagg gtggcagcgg cagcgcgggc ggtagtggct cgggtgggccc gacgcggcgc 300
254 ccgcgcgggc gcccgcccgg gtccaagaac aagccgaagc cgcccatcat cgtgacgcgc 360
256 gacagcccga acgcgctgca ctgcacgtg ctcgaggtcg ccggcggcgc cgacgtcgtc 420
258 gactgcgtgg ccgagtacgc ccgcccga gggcgcgccg tgtgcgtgct gagcggcggc 480
260 ggcgccgtcg tcaacgtggc gctgcggcag ccgggcgcgt cgccgccggg cagcatggtg 540
262 gccacgctgc ggggccggtt cgagatccta tctctcacgg gcacggtcct gccgcctccc 600
264 gcgccaccgg gcgcgagcgg cctcaccgtg ttctctcccg gcggccaggg ccaggatgatc 660
266 ggcggcagcg tgggtggccc gctggctgcc gcggggcccg tcgtcctgat ggcggcctca 720
268 ttcggaacg ccgtgtacga gcggctgccg ctggaggggc aggaagagga ggtcgccgcg 780
270 cccgcccgcg gagcggaagc acaagatcaa gtggcacaat cagctggacc cccagggcag 840
272 caaccggcgg cgtcacagtc ctccggcggt acaggaggcg acggcaccgg cggcgccggt 900
274 ggcattgtcg tctacaacct cgccgggaat gtgggaggct atcagctccc cggagacaac 960
276 ttcggagggt ggagcggcgc cggcgccggc ggagtcaggc caccgttctg acccatgtct 1020
278 tagcatccag ttcaaaaatt ctccaaaatta agaattgcgc agtcgagaag c 1071

```

281 <210> SEQ ID NO: 6

282 <211> LENGTH: 693

283 <212> TYPE: DNA

284 <213> ORGANISM: Gossypium hirsutum

286 <400> SEQUENCE: 6

```

288 gcgttcggca gccactacaa gctctggagg aggagtacca cgtcgggaaa aaaacctaga 60
290 ggacgtccag cgggatccaa gaacaagccg aaatcaccca taatcggtgc tcgcgacagt 120
292 ccgaactcgt tgagatccca cgtgctcgaa atctcttccg gttcagacat agttgactcg 180
294 gtgtggggct acgcacggcg gcgcggccgt ggcgtttgtg tactcagcgg gaccggtgcc 240
296 gtcacgaatg tcacgttaag gcaaccggct gctccacctg gaagtgtcgt aacactacac 300
298 ggtcggttcg agattttatc ttttaaccggg acttctctcc caccgccagc accgcctgga 360
300 gctgggtgat tgacggttta tctcgccggc gttcaaggct aagtagtcgg aggaagcgtg 420
302 gtgggaccgt taatggcttc aggtccagtc gtattaatgg ctgcatcggt cgccaatgca 480
304 gtttacgata ggttacctct cgaagaagaa gaccaccaa ccgttcacga acaacaacca 540
306 gcagcttcac aatcatccgg attaacggc agtggcgggc gaaacaacaa caactgtgga 600

```

RAW SEQUENCE LISTING

DATE: 01/06/2005

PATENT APPLICATION: US/10/783,710A

TIME: 16:07:23

Input Set : D:\38-21(52743)B.rpt

Output Set: N:\CRF4\01062005\J783710A.raw

```

308 acaaccggaa ccggcgtagg cggcgggcggc ggcgggggttc ctttctataa tttgggacca 660
310 aacatgggaa cttatccatt tccaggatta tga 693
313 <210> SEQ ID NO: 7
314 <211> LENGTH: 99
315 <212> TYPE: PRT
316 <213> ORGANISM: Arabidopsis thaliana
318 <400> SEQUENCE: 7
320 Ala Lys Pro Pro Ile Ile Val Thr Arg Asp Ser Pro Asn Ala Leu Arg
321 1 5 10 15
323 Ser His Val Leu Glu Val Ser Pro Gly Ala Asp Ile Val Glu Ser Val
324 20 25 30
326 Ser Thr Tyr Ala Arg Arg Arg Gly Arg Gly Val Ser Val Leu Gly Gly
327 35 40 45
329 Asn Gly Thr Val Ser Asn Val Thr Leu Arg Gln Val Val Thr Leu His
330 50 55 60
332 Gly Arg Phe Glu Ile Leu Ser Leu Thr Gly Thr Val Leu Pro Pro Pro
333 65 70 75 80
335 Ala Pro Pro Gly Ala Gly Gly Leu Ser Ile Phe Leu Ala Gly Gly Gln
336 85 90 95
338 Gly Gln Val
342 <210> SEQ ID NO: 8
343 <211> LENGTH: 99
344 <212> TYPE: PRT
345 <213> ORGANISM: Arabidopsis thaliana
347 <400> SEQUENCE: 8
349 Pro Lys Pro Pro Thr Ile Ile Thr Arg Asp Ser Pro Asn Val Leu Arg
350 1 5 10 15
352 Ser His Val Leu Glu Val Thr Ser Gly Ser Asp Ile Ser Glu Ala Val
353 20 25 30
355 Ser Thr Tyr Ala Thr Arg Arg Gly Cys Gly Val Cys Ile Ile Ser Gly
356 35 40 45
358 Thr Gly Ala Val Thr Asn Val Thr Ile Arg Gln Val Ile Thr Leu His
359 50 55 60
361 Gly Arg Phe Asp Ile Leu Ser Leu Thr Gly Thr Ala Leu Pro Pro Pro
362 65 70 75 80
364 Ala Pro Pro Gly Ala Gly Gly Leu Thr Val Tyr Leu Ala Gly Gly Gln
365 85 90 95
367 Gly Gln Val
371 <210> SEQ ID NO: 9
372 <211> LENGTH: 107
373 <212> TYPE: PRT
374 <213> ORGANISM: Gossypium hirsutum
376 <400> SEQUENCE: 9
378 Pro Lys Ser Pro Ile Ile Val Ala Arg Asp Ser Pro Asn Ser Leu Arg
379 1 5 10 15
381 Ser His Val Leu Glu Ile Ser Ser Gly Ser Asp Ile Val Asp Ser Val
382 20 25 30
384 Trp Gly Tyr Ala Arg Arg Arg Gly Arg Gly Val Cys Val Leu Ser Gly
385 35 40 45

```

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 01/06/2005
PATENT APPLICATION: US/10/783,710A TIME: 16:07:24

Input Set : D:\38-21(52743)B.rpt
Output Set: N:\CRF4\01062005\J783710A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:11; Xaa Pos. 1,3,5,7,8,14,16,22,23,24,26,28,29,30,31,33,34,37,41,44,45

Seq#:11; Xaa Pos. 46,47,49,51,53,56,57,60,61,62,63,64,65,66,67,68,70,73,77

Seq#:11; Xaa Pos. 85,95,98,99,100,104

VERIFICATION SUMMARY

DATE: 01/06/2005

PATENT APPLICATION: US/10/783,710A

TIME: 16:07:24

Input Set : D:\38-21(52743)B.rpt

Output Set: N:\CRF4\01062005\J783710A.raw

L:12 M:270 C: Current Application Number differs, Replaced Current Application No

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date --

L:634 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0

M:341 Repeated in SeqNo=11